REPRODUCTION OF THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Previously Presented) A scroll-type compressor for handling a working fluid, said compressor comprising:

a shell having a suction zone and a discharge zone;

a first scroll member disposed in said shell and having a first scroll wrap extending from a first end plate;

a second scroll member disposed in said shell and having a second scroll wrap extending from a second end plate, said second scroll wrap being intermeshed with said first scroll wrap to define a plurality of closed pockets;

a drive mechanism for causing said second scroll member to orbit with respect to said first scroll member, said plurality of pockets moving from a radial outer position in said suction zone to a central position in said discharge zone;

a vapor injection system including a fluid circuit in communication with at least one of said plurality of pockets, said fluid circuit including a fluid passage extending from said one pocket to a position outside said shell for injecting vapor into said one pocket and increasing a capacity of the compressor, said fluid passage extending through said second scroll member; and

a valve for controlling fluid flow through said fluid passage.

2. (Original) The scroll-type compressor according to claim 1, wherein said valve is disposed within said shell.

3. (Original) The scroll-type compressor according to claim 2, wherein said valve is controlled by a pressurized fluid from outside said shell.

4. (Previously Presented) A scroll-type compressor for handling a working fluid; said compressor comprising:

a shell;

a non-orbiting scroll member disposed within said shell and having a nonorbiting scroll wrap extending from a non-orbiting end plate;

an orbiting scroll member disposed within said shell and having an orbiting scroll wrap extending from an orbiting end plate, said orbiting scroll wrap being intermeshed with said non-orbiting scroll member to define a plurality of closed pockets;

a drive mechanism for causing said orbiting scroll member to orbit with respect to said non-orbiting scroll member, said plurality of closed pockets moving from a radial outer position where said working fluid is at a suction pressure to a radially inner central position where said working fluid is at a higher discharge pressure during said orbital movement;

a vapor injection system including a fluid circuit in communication with at least one of said plurality of moving pockets, said fluid circuit including a fluid passage extending from said one pocket to a position outside of said shell for injecting vapor into said one pocket and increasing a capacity of the compressor, said fluid pocket extending through said orbiting scroll member; and

a valve for controlling fluid flow through said fluid passage.

5. (Original) The scroll-type compressor according to claim 4, wherein said valve is disposed within said shell.

6. (Original) The scroll-type compressor according to claim 5, wherein said valve is controlled by a pressurized fluid from outside said shell.

7. (Original) A scroll-type compressor for handling a working fluid, said compressor comprising:

a shell having a suction zone and a discharge zone;

a first scroll member disposed in said shell and having a first scroll wrap extending from a first end plate;

a second scroll member disposed in said shell and having a second scroll wrap extending from a second end plate, said second scroll wrap being intermeshed with said first scroll wrap to define a plurality of closed pockets;

a drive mechanism for causing said second scroll member to orbit with respect to said first scroll member, said plurality of pockets moving from a radial outer position in said suction zone to a central position in said discharge zone;

a fluid circuit in communication with at least one of said plurality of pockets, said fluid circuit including a fluid passage extending from said one pocket to a position outside said shell, said fluid passage extending through said second scroll member;

a housing disposed within said shell, said housing supporting said second scroll member, said fluid passage extending through said housing; and

a valve disposed within said housing, said valve controlling fluid flow through said fluid passage.

8. (Original) The scroll-type compressor according to claim 1, wherein said valve is controlled by a pressurized fluid from outside said shell.

9. (Original) A scroll-type compressor for handling a working fluid; said compressor comprising:

a shell;

a non-orbiting scroll member disposed within said shell and having a nonorbiting scroll wrap extending from a non-orbiting end plate;

an orbiting scroll member disposed within said shell and having an orbiting scroll wrap extending from an orbiting end plate, said orbiting scroll wrap being intermeshed with said non-orbiting scroll member to define a plurality of closed pockets;

a drive mechanism for causing said orbiting scroll member to orbit with respect to said non-orbiting scroll member, said plurality of closed pockets moving from a radial outer position where said working fluid is at a suction pressure to a radially inner central position where said working fluid is at a higher discharge pressure during said orbital movement;

a fluid circuit in communication with at least one of said plurality of moving pockets, said fluid circuit including a fluid passage extending from said one pocket to a position outside of said shell, said fluid pocket extending through said orbiting scroll member;

a housing disposed within said shell, said housing supporting said orbiting scroll member, said fluid passage extending through said housing; and

a valve disposed within said housing, said valve controlling fluid flow through said fluid passage.

10. (Original) The scroll-type compressor according to claim 9, wherein said valve is controlled by a pressurized fluid from outside said shell.

11. (Original) A scroll-type compressor for handling a working fluid, said compressor comprising:

a shell having a suction zone and a discharge zone;

a first scroll member disposed in said shell and having a first scroll wrap extending from a first end plate;

a second scroll member disposed in said shell and having a second scroll wrap extending from a second end plate, said second scroll wrap being intermeshed with said first scroll wrap to define a plurality of closed pockets;

a drive mechanism for causing said second scroll member to orbit with respect to said first scroll member, said plurality of pockets moving from a radial outer position in said suction zone to a central position in said discharge zone;

a fluid circuit in communication with at least one of said plurality of pockets, said fluid circuit including a fluid passage extending from said one pocket to a position outside said shell, said fluid passage extending through said second scroll member; and

a housing having a plurality of legs disposed within said shell, said housing supporting said second scroll member, said fluid passage extending through one of said legs of said housing.

12. (Original) The scroll-type compressor according to claim 11, further comprising a valve disposed within said housing, said valve controlling fluid flow through said fluid passage.

13. (Original) The scroll-type compressor according to claim 12, wherein said valve is controlled by a pressurized fluid from outside said shell.

14. (Original) A scroll-type compressor for handling a working fluid; said compressor comprising:

a shell;

a non-orbiting scroll member disposed within said shell and having a nonorbiting scroll wrap extending from a non-orbiting end plate;

an orbiting scroll member disposed within said shell and having an orbiting scroll wrap extending from an orbiting end plate, said orbiting scroll wrap being intermeshed with said non-orbiting scroll member to define a plurality of closed pockets;

a drive mechanism for causing said orbiting scroll member to orbit with respect to said non-orbiting scroll member, said plurality of closed pockets moving from a radial outer position where said working fluid is at a suction pressure to a radially inner central position where said working fluid is at a higher discharge pressure during said orbital movement;

a fluid circuit in communication with at least one of said plurality of moving pockets, said fluid circuit including a fluid passage extending from said one pocket to a position outside of said shell, said fluid pocket extending through said orbiting scroll member; and

a housing having a plurality of legs disposed within said shell, said housing supporting said orbiting scroll member, said fluid passage extending through one of said legs of said housing.

15. (Original) The scroll-type compressor according to claim 14, further comprising a valve disposed within said one leg of said housing, said valve controlling fluid flow through said fluid passage.

16. (Original) The scroll-type compressor according to claim 15, wherein said valve is controlled by a pressurized fluid from outside said shell.

17. (Previously Presented) A scroll-type compressor for handling a working fluid, said compressor comprising:

a shell having a suction zone and a discharge zone;

a first scroll member disposed in said shell and having a first scroll wrap extending from a first end plate;

a second scroll member disposed in said shell and having a second scroll wrap extending from a second end plate, said second scroll wrap being intermeshed with said first scroll wrap to define a plurality of closed pockets;

a drive mechanism for causing said second scroll member to orbit with respect to said first scroll member, said plurality of pockets moving from a radial outer position in said suction zone to a central position in said discharge zone;

a fluid circuit in communication with at least one of said plurality of pockets, said fluid circuit including a fluid passage extending from said one pocket to said suction zone of said compressor, said fluid passage extending through said second scroll member; ~~and~~

a housing disposed within said shell, said housing supporting said second scroll member, said fluid passage extending through said housing; and

a valve disposed within said housing, said valve controlling fluid flow through said fluid passage.

18. (Cancelled)

19. (Original) The scroll-type compressor according to claim 18, wherein said valve is controlled by a pressurized fluid from outside said shell.

20. (Original) The scroll-type compressor according to claim 18, wherein said fluid passage is in communication with an injection port extending through said shell and said valve is movable between a first position where said one pocket communicates with said suction zone of said compressor and a second position where said one pocket communicates with said injection port extending through said shell.

21. (Original) A scroll-type compressor for handling a working fluid, said compressor comprising:

a shell having a suction zone and a discharge zone;

a first scroll member disposed in said shell and having a first scroll wrap extending from a first end plate;

a second scroll member disposed in said shell and having a second scroll wrap extending from a second end plate, said second scroll wrap being intermeshed with said first scroll wrap to define a plurality of closed pockets;

a drive mechanism for causing said second scroll member to orbit with respect to said first scroll member, said plurality of pockets moving from a radial outer position in said suction zone to a central position in said discharge zone;

a fluid circuit in communication with at least one of said plurality of pockets, said fluid circuit including a fluid passage extending from said one pocket to said suction zone of said compressor, said fluid passage extending through said second scroll member; and

a valve for controlling fluid flow through said fluid passage; wherein;

said valve is disposed within said shell; and

said valve is controlled by a pressurized fluid from outside said shell.

22. (Original) The scroll-type compressor according to claim 21, wherein said fluid passage is in communication with an injection port extending through said shell and said valve is movable between a first position where said one pocket communicates with said suction zone of said compressor and a second position where said one pocket communicates with said injection port extending through said shell.

23. (Original) A scroll-type compressor for handling a working fluid, said compressor comprising:

a shell having a suction zone and a discharge zone;

a first scroll member disposed in said shell and having a first scroll wrap extending from a first end plate;

a second scroll member disposed in said shell and having a second scroll wrap extending from a second end plate, said second scroll wrap being intermeshed with said first scroll wrap to define a plurality of closed pockets;

a drive mechanism for causing said second scroll member to orbit with respect to said first scroll member, said plurality of pockets moving from a radial outer position in said suction zone to a central position in said discharge zone;

a fluid circuit in communication with at least one of said plurality of pockets, said fluid circuit including a fluid passage extending from said one pocket to said suction zone of said compressor, said fluid passage extending through said second scroll member; and

a housing having a plurality of legs disposed within said shell, said housing supporting said first scroll member, said fluid passage extending through one of said legs of said housing.

24. (Original) The scroll-type compressor according to claim 23, further comprising a valve disposed within said housing, said valve controlling fluid flow through said fluid passage.

25. (Original) The scroll-type compressor according to claim 24, wherein said valve is controlled by a pressurized fluid from outside said shell.